

ABSTRACT OF THE INVENTION

[0130] The methods and apparatus, disclosed herein are of use for sequencing and/or identifying proteins, polypeptides and/or peptides. Proteins containing labeled amino acid residues may be synthesized and passed through nanopores. A detector operably coupled to a nanopore may detect labeled amino acid residues as they pass through the nanopore. Distance maps for each type of labeled amino acid residue may be compiled. The distance maps may be used to sequence and/or identify the protein. Apparatus of use for protein sequencing and/or identification is also disclosed herein. In alternative methods, other types of analytes may be analyzed by the same techniques.